

Dynamically controlled underfloor heating

Differential pressure controller 4012 VS-TS with integrated throttle, shut-off and zone valve



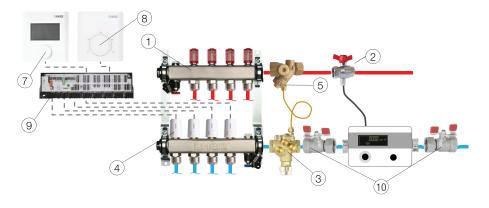


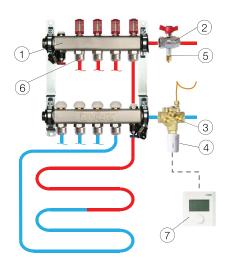
Dynamically controlled underfloor heating

Overview

The differential pressure controller 4012 VS-TS offers a reliable solution for the automatic hydronic balancing of underfloor heating with the additional option of zone control. Compared to dynamic thermostatic valves, it is significantly less sensitive to poor heating water quality.

Hydraulic balancing, multi-zone control, installation with heat meter





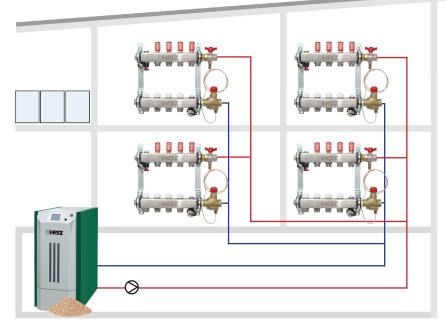
- 1 8362 Stainless steel distributor
- 2 **2202** Ball valve with connection
- 3 **4012** VS-TS
- 4 7708 / 7711 Actuating drive
- 5 **4111** Strainer with connection nipple 1/8" 1/4" (**0269**)
- 6 **6098** Plastic pipe connections
- 7 **F799** Electronic room thermostat
- 8 **F799** Electronic room thermostat
- 9 **F798** Electrical distributor
- 10 **2442** Ball valve with freely-rotating union nut

☑ Example

Hydraulic balancing of several distributors

In heating systems with distributors for underfloor heating, the hydraulic balancing is carried out automatically by the differential pressure controller **4012**, in that every valve on the distributor has a constant differential pressure and therefore the desired flow rate, regardless of pressure fluctuations.

The combination of thermostatic valve and differential pressure controller is hydraulically comparable to dynamic thermostatic valves on the distributor, but this solution is significantly more robust and less sensitive to dirt.





Benefits

- 4 functions in one valve (differential pressure control, throttle, shut-off and zone valve function).
- ☑ Maintains constant differential pressure at the distributor and thus the constant flow in the heating circuits.
- ☑ The maximum flow rate at the distributor can be limited by means of the stroke limiter, which can be preset using the setting key 1 4006 02.
- ☑ The pressure relief for all dimensions enables the use of HERZ thermal or geared motors.
- ☐ The entire distributor can be shut off by the integrated zone valve with mount for thermal or geared motors.
- Alternatively, the supplied red shut-off cap can be used to shut off the zone valve manually.

- Short overall lengths simplify installation in distribution cabinets.
- ☑ The differential pressure control range is suitable for underfloor heating.
- An entire zone can be controlled with a room thermostat and a suitable actuator on the differential pressure controller for a cost-effective solution.
- With the same hydraulic control function differential pressure controller versus dynamic Thermostatic valves is much less sensitive against poor heating water quality.



Series 4012/4212 VS-TS, HP

Compact design, dezincification resistant brass body, female thread or male thread with flat sealing.

max. operating pressure PN 25 max. operating temperature 130°C (no steam)

Impulse line can be connected to shut-off valves **4115**, **4125** or line regulating valves **4017**, **4217** or strainer **4111** with enclosed connection nipple 1/8" to 1/4" (**0269**).

Impulse line can be connected to ball valve **2202** with connection nipple M 10 x 1 - 1/8" (**4007**). Adjusting key for differential pressure controller (1 **4006** 02).

4012 VS-TS



☑ HERZ differential pressure controller with integrated throttle and zone valve 4012 VS-TS

4212 VS-TS

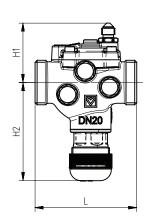


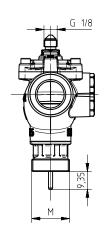
☑ HERZ differential pressure controller with integrated throttle and zone valve 4212 VS-TS

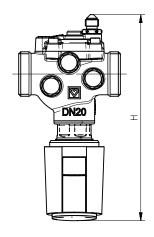
l/h max.	Regulated differential pressure	DN	Co	nnection thread	Order number	
1900	05 kDa	15	G ¾"	flat sealing	1 4012 41	
2000		20	G 1"	flat sealing	1 4012 42	
1900	35 kPa	15	Rp ½" sleeve		1 4212 41	
2000		20	Rp ¾"	sleeve	1 4212 42	

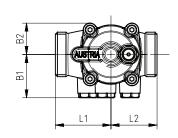


☑ Dimensions in mm









Order number	DN	L [mm]	H1 [mm]	H2 [mm]	H* [mm]	B1 [mm]	B2 [mm]	L1 [mm]	L2 [mm]	M [mm]
1 4012 41	15		45	74	154	33	23	41	34	28 x 1,5
1 4012 42	20	7.5								
1 4212 41	15	75								
1 4212 42	20									

^{*} with actuators 1 7708 XX, 1 7711 XX











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